

Claim Rejections – 35 U.S.C. §103

The present invention is not obvious in view of the references relied upon in the Office Action, as these references do not disclose or suggest the claimed features of the present invention.

Nakase in view of Whang

The Applicant respectfully submits that the present invention according to claims 1-32 is not taught or suggested by Nakase in view of Whang. Applicant will discuss Whang first because it is the new reference that is being relied upon the examiner.

Whang

Whang does not correct the deficiencies of Nakase. (The deficiencies of Nakase were addressed in our September 9, 2003 response and listed below, again, for your convenience.) Whang is a subsequence matching method used to create indexes. Whang improves the index creating method by reducing the calls to a feature extraction function. (Col 4:13-18) Figure 3 of Whang is a very high level hardware environment for Whang's invention (Col. 7:43-57). In particular element 45, the "multidimensional index" is part of a "database management system 20" (Col. 7:51-54). As Whang states "[t]he input to the index building process is a database containing data sequences; the output a multidimensional index, which is will be used in the subsequence matching." (Col. 8:58-6)(emphasis added). Whang's multidimensional index is intermediary data that will be used in a subsequent matching process. Thus, the multidimensional index in Whang is not processed to refine time labels nor, does Whang teach generating the multi-level time labels from the refined time labels stored in the multi-level data structure. In sum,

Whang does not teach or suggest processing a multi-level data structure to refine time labels nor does it teach generating multi-level time labels from the refined time labels stored in the multi-level data structure.

Nakase

Nakase does not teach or suggest processing the multi-level data structure “to refine time labels” or “generate multi-level time labels” from the refined time labels stored in the multi-level data structure. Rather, Nakase uses the time based data to develop association rules with information related to particular events. Nakase discloses an analytical process which sorts data to help companies develop marketing or sales strategies. (*See e.g.* Col. 1:18-36) The data associated with items and is organized by predetermined periods of time. (*See e.g.* Col. 4:64-Col.5:20). Nakase applies an association extraction apparatus/means to the data and thus develops an association rule. (*See e.g.* Col. 2:14-32) The association rule includes information of particular events. *Id.* Nakase does not teach or suggest processing a multi-level data structure to refine time labels nor does it teach generating multi-level time labels from the refined time labels stored in the multi-level data structure. Thus, Nakase does not teach or suggest the claimed invention, and Whang does not correct the deficiencies of Nakase.

Thus, the present invention, according to claims 1-32 is not unpatentable by Nakase in view of Whang.

In view of the above, it is respectfully submitted that the present invention is allowable over the references relied upon in the Office Action. Accordingly, favorable reconsideration of this case and early issuance of the Notice of Allowance are respectfully requested.

Appl. No. 09/788,459  
Amdt. dated April 7, 2004  
Reply to Office action of December 8, 2003

**Additional Fees:**

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with this application to Deposit Account No. 19-5127 (11545.0001).

**Conclusion**

In view of the foregoing, all of the Examiner's rejections to the claims are believed to be overcome. The Applicants respectfully request reconsideration and issuance of a Notice of Allowance for all the claims remaining in the application. Should the Examiner feel further communication would facilitate prosecution, he is urged to call the undersigned at the phone number provided below.

Respectfully Submitted,



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